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09/028,726	02/24/1998	MATTI JOKIMIES	297-007856-U	5120

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EXAMINER

APPIAH, CHARLES NANA

ART UNIT

PAPER NUMBER

2682

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16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/028,726

Applicant(s)

Jokimies

Examiner

Charles Appiah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Sep 26, 2001

2a) ☐ This action is FINAL.

2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-10 is/are pending in the applica

4a) Of the above, claim(s) _____ is/are withdrawn from considera

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1-10 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirem

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

20) ☐ Other:

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Alford (5,722, 070)** in view of **Naddell et al. (5,613,213)**.

With respect to claims 1, 4, and 6 Alford teaches a cellular system, which comprises terminals, cells and a network including stationary network equipment of which the terminals are arranged to set up and maintain radio communication with base stations in the cells (see FIG. 2). wherein at least one terminal is arranged to favor at least one cell based on data specific to that terminal (feature of transmission of cell beacon that identifies a particular cell being transmitted on every transceiver in the cell site base station, col. 7, lines 41-54, the cell beacon comprises cell ID code . . . , col. 8, lines 17-41, and "the indicia of cell of preference is equal to the cell ID code transmitted in the cell beacon . . .", col. 9, lines 10-17). Alford, however, fails to specifically disclose that the cell of preference is based on data stored in and received from the network.

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In an analogous field of endeavor, Naddell teaches a system for providing information regarding available services to a communication unit (see title). As illustrated in FIG. 1, the communication systems covers specific service areas made up of base stations under the control of a base station controller and that a system under a system administrator or operator transmits service information on RF communication resources to communication units which is received and displayed on the communication unit's display (see col. 2, line 65 to col. 3, line 58). By monitoring the radio communication resources that are associated with a particular system, as sourced by the RF communication system, the communication unit has the capability to determine if a system is within range and hence save the user time in determining service availability to meet their service needs (see col. 4, line 46 to col. 5, line 15).

It would therefore have been obvious to one of ordinary skill in the art to combine the above teaching of Naddell with the system of Alford for the benefit of providing information on service availability thus saving the user time in accessing systems and services.

4. Claims 1, 2, 3, 4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Alford (5,722, 070)** in view of **Westerberg (6,058,302)**.

With respect to claims 1, 4, and 6 Alford teaches a cellular system, which comprises terminals, cells and a network including stationary network equipment of which the terminals are arranged to set up and maintain radio communication with base stations in the cells (see FIG. 2). wherein at least one terminal is arranged to favor at least one cell based on data specific to that terminal (feature transmission of cell beacon that identifies a particular cell being transmitted on

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every transceiver in the cell site base station, col. 7, lines 41-54, the cell beacon comprises cell ID code . . . , col. 8, lines 17-41, and “the indicia of cell of preference is equal to the cell ID code transmitted in the cell beacon . . .”, col. 9, lines 10-17). Alford, however, fail to specifically disclose that the cell of preference is based on data stored in and received from the network.

In an analogous field of endeavor, Westerberg discloses a system for limiting access to private cellular networks in cellular communications systems (title). According to Westerberg, in response to a transmission of a conventional cell update request message or uplink initiation transfer message by a subscriber of a private network, both the public network and the private network transmit information that could include information about cell identity, priority class, temporary offsets to use, etc., (see col. 5, lines 24-49), which information is received and stored in internal memory by the mobile terminal (see col. 5, line 49 to col. 6, line 2). According to Westerberg, by providing information to the mobile terminals regarding a private network and a public network to a mobile subscriber, the subscribing terminal is able to fully use features such as handovers between cells, or HCS for prioritizing the use of cells (see col. 3, lines 21-27).

It would therefore have been obvious to one of ordinary skill in the art to incorporate the above teaching of Westerberg by providing information on the networks available to a subscriber in order for the subscriber to be able to fully use such features as prioritizing the use of cells in the network.

With respect to claim 2, Alford fails to teach storing cell priority data in the stationary network equipment.

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However, Westerberg discloses a system in which, in response to a transmission of a conventional cell update request message or uplink initiation transfer message by a subscriber of a private network, both the public network and the private network transmit information that could include information about cell identity, priority class, temporary offsets to use, etc., (see col. 5, lines 24-49), which information is received and stored in internal memory by the mobile terminal (see col. 5, line 49 to col. 6, line 2), thus suggesting the provision of information stored in the networks to the mobile terminal. According to Westerberg, by providing information to the mobile terminals regarding a private network and a public network to a mobile subscriber, the subscribing terminal is able to fully use features such as handovers between cells, or HCS for prioritizing the use of cells (see col. 3, lines 21-27).

It would therefore have been obvious to one of ordinary skill in the art to incorporate the above teaching of Westerberg by making information on the networks available to a subscriber in order for the subscriber to be able to fully use such features as prioritizing the use of cells in the network.

With respect to claims 3 and 7, Alford fails to specifically disclose that the stationary network equipment is arranged to supply information to the terminal about priority data relating to the terminal, as a response to one of the following: the terminal registers with the cellular radio system, the terminal's location data changes in the cellular radio system, the priority data in the database is altered, a predetermined time has passed since the previous message to the terminal, which contained priority data relating to the terminal.

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Westerberg discloses a system in which, in response to a transmission of a conventional cell update request message or uplink initiation transfer message by a subscriber of a private network (reads on the terminal registers with the cellular radio system, and the terminal's location data changes in the cellular radio system), both the public network and the private network transmit information that could include information about cell identity, priority class, temporary offsets to use, etc., (see col. 5, lines 24-49), which information is received and stored in internal memory by the mobile terminal (see col. 5, line 49 to col. 6, line 2), thus suggesting the provision of information stored in the networks to the mobile terminal.

It would therefore have been obvious to one of ordinary skill in the art, at the time of the invention to provide the above teaching of Westerberg with the system of Alford for the benefit of controlling the provision of desired information needed for communications.

5. Claims 5 and 8 are rejected under 35 U.S.C.103(a) as being unpatentable over **Alford** and **Westerberg** as applied to claims 4 and 6 above, and further in view of **Wang et al. (5,649,289)**.

With respect to claims 5 and 8, Westerberg further discloses that, based on information on the subscription of a mobile terminal regarding both a public cell and private cell, the subscribing mobile terminal will be able to consider both public cell and private cell for cell re-selection should it move to the coverage area of one of those cells (see col. 5, lines 18-23).

The combination of Alford and Westerberg, however, fail to specifically disclose that the terminal is further arranged to maintain a list of possible cells for re-selection and to arrange the list in an order which is based on a parameter calculated for each cell, in which for priority cells, the

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terminal is arranged to alter the parameter calculation relating to the cell, so that the parameter has a particular advantageous value in the case of a priority cell.

Wang discloses a communication system that uses indexes in determining cells which are considered part of a preferred list for a customer paging area for a mobile subscriber (see col. 5, lines 35-67).

It would therefore have been obvious to one of ordinary skill in the art to incorporate the teaching of Wang into the system of Alford and Westerberg in order to identify the characteristics of preferable cells for cell system.

Alford and Westerberg, as modified by Wang, fail to specifically teach the terminal being arranged to maintain a list of possible cells for cell re-selection in an order which is based on a parameter calculated for each cell, in which for priority cells, it is arranged to alter the parameter calculation relating to the cell so that the parameter gets a particularly advantageous value in the case of a priority cell.

However, it is very well known in the art to use certain defined parameters in maintaining cell re-selection data to favor priority cells as taught by Wang.

It would therefore have been obvious to one of ordinary skill in the art to combine the teaching of Wang with the system of Alford and Westerberg for the benefit of ensuring the selection of priority cells for communication in order to reduce charges for mobile subscribers.

6. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Alford, Westerberg and Wang et al**, as applied to claim 8 above, and further in view of **ETSI**

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(European Telecommunications Standards Institute), ETS 300 535 (GSM 03.22 version 4.10.0).

With respect to claims 9 and 10, Alford and Westerberg as modified by Wang, (as taught by Wang) further teach priority data relating to a terminal includes at least the priority cell identity (see FIG. 2), and Westerberg further discloses the inclusion of information on permanent offsets to use in the control information transmitted to a subscriber (see col. 5, lines 42-49). However, Alford as modified by Westerberg and Wang fail to specifically teach information as to whether or not the terminal shall apply an offset parameter, a delay factor relating to the cell and cell re-selection hysteresis in the calculation of the parameter relating to a priority cell in a situation where cell re-selection represents shifting from a non-priority cell to a priority cell.

However, it is known in the art to use cell re-selection hysteresis and the use of a delay factor in calculating parameters relating to cell re-selection as taught by GSM 03.22 version 4.10.0. The specification teaches that for cell re-selection in cell prioritization, a hysteresis factor as well as an offset value can be used in determining a parameter (C2) (see sections 3.4- 3.5.2.2)

It would therefore have been obvious to one of ordinary skill in the art to use a delay factor in the system of Alford, Westerberg and Wang as taught by ETSI standard for cell re-selection hysteresis in making decisions regarding movement to and from priority cells as desired for the benefit of encouraging or discouraging re-selection of specific prioritized cells.

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Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Carlsson et al. (6,253,074) discloses a system with a database within a cellular system with separate registers for storing information relating to each of user, subscription and terminal. Meskanen et al. (WO 99/13670) discloses a method for cell selection in a cellular network. Kojima (5,590,3979) discloses a system for prioritizing radio telephone systems.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Appiah whose telephone number is (703) 305-4772. The examiner can normally be reached on M-F from 7:30AM to 5:00PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chang, can be reached on (703) 305-6739.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4750. The Group fax number is (703) 872-9314

Serial Number: 09/028,726

^A
Charles Appiah

December 4, 2001.


CHARLES APPIAH
PATENT EXAMINER